

Plumber I

Knowledge, Skill, Ability, and Personal Characteristic Statements Rating Results

1.	Knowledge of Safety Orders of the Division of Industrial Safety applicable to plumbing to ensure a safe working environment.
2.	Knowledge of the Uniform Plumbing Codes in order to complete plumber activities in compliance with State and Federal regulations and departmental guidelines.
3.	Knowledge of building codes applicable to plumbing activities and projects.
4.	Knowledge of the principles, methods, tools, and equipment used in plumbing to ensure adherence to departmental quality standards and the Uniform Plumbing Code.
5.	Knowledge of standard plumbing installation and servicing techniques concerned with various applications (e.g., water, gas, sewage, steam, oil, fire) in order to complete plumbing projects.
6.	Knowledge of the processes for conducting inspections of standard plumbing installations concerned with various applications (e.g., water, gas, sewage, steam, oil, fire) to ensure proper function, safety, and maximum efficiency.
7.	Knowledge of the inner workings and installation process for water irrigation systems in order to inspect and/or make repairs.
8.	Knowledge of various types of pipe (e.g., galvanized, copper, plastic) and their uses/properties in order to properly plan, conform to the Uniform Plumbing Code, and complete plumbing projects.
9.	Knowledge of various types of machinery (e.g., snakes, power snakes, hand spinners, cameras) used to solve plumbing problems.
10.	Knowledge of materials, methods, and the tools involved in the construction or repair of houses, commercial buildings, and other structures such as highways, roads, and parks and how they relate to plumbing installation.
11.	Knowledge of basic algebra and geometry and their applications for determining pipe measurement, fall, and grading in the completion of plumbing activities.
12.	Knowledge of basic arithmetic (e.g., addition, subtraction, multiplication, division) used for the completion of plumbing activities.
13.	Knowledge of plumbing design techniques, tools, and principles involved in production of precision technical plans, blueprints, drawings, and models.
14.	Knowledge of principles and processes for providing customer and personnel services, including customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.
15.	Knowledge of the structure and content of the English language including the meaning and spelling of words, rules of composition, and grammar to facilitate interactions with various entities (e.g., staff, the public, contractors, vendors).

16.	Ability to solder, silver braze, and install copper fittings into copper lines in compliance with the Uniform Plumbing Code, safety requirements, and departmental guidelines.
17.	Ability to conduct tests and inspections of machinery and/or products (e.g., bathroom fixtures, plumbing installations, drains), or various applications (e.g., water, gas, sewage, steam, oil, fire) to evaluate quality or performance.
18.	Knowledge of machines and tools, including their designs, uses, repair, and maintenance for use in plumbing activities.
19.	Ability to maintain and account for tools, materials, and equipment used in plumbing activities and projects.
20.	Ability to use logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
21.	Ability to fully attend to discussions taking time to understand the points being made, asking questions as appropriate to facilitate problem resolution and positive interactions.
22.	Ability to review information to develop and evaluate options and implement solutions to plumbing problems.
23.	Ability to read and comprehend English in order to interpret/produce work related documents.
24.	Ability to consider relative costs and benefits of potential actions related to planning plumbing projects.
25.	Ability to monitor gauges, dials, or other indicators (e.g., pumps, mixing valves, water heaters/boilers) to determine whether a machine is working properly.
26.	Ability to convey information effectively to facilitate staff and customer relations.
27.	Ability to read blueprints and work from plans and specifications established and used for plumbing projects.
28.	Ability to keep records and produce reports for plumbing activities and projects.
29.	Ability to prepare rough sketches of minor plumbing installations to facilitate plumbing activities.
30.	Ability to estimate material and labor costs for minor plumbing jobs.
31.	Ability to recognize potentially dangerous or problematic plumbing circumstances in order to implement preventative measures.
32.	Ability to apply solutions to resolve plumbing problems.
33.	Ability to combine pieces of information to form general rules or conclusions.
34.	Ability to follow oral and written directions relating to activities and projects.
35.	Ability to make satisfactory progress with prescribed training.
36.	Ability to analyze information provided/observed and make sound decisions/conclusions.
37.	Knowledge of drain or pipe clearing/cleaning equipment (e.g., drain cleaning cables, hand spinners, handheld electric snake, power sink machine, drain cleaners, toilet augers, blow/bladder bag) to facilitate plumbing activities.
38.	Knowledge of pipe or tube cutters (e.g., copper cutting machines, power pipe cutters, ratcheting polyvinyl chloride cutters, tubing cutters) to facilitate plumbing activities.

39.	Knowledge of the functions of pressure indicators (e.g., pressure gauges, heavy duty water pressure gauges, standard water pressure gauges) to facilitate plumbing activities.
40.	Ability to use hand tools (e.g., basin wrench, pipe wrench, augers, hammer, tape measure, level, plunger) in the completion of plumber activities.
41.	Knowledge of hand tools (e.g., basin wrench, pipe wrench, augers, hammer, tape measure, level, plunger) used to complete plumber activities.
42.	Ability to use pullers (e.g., compression sleeve pullers, faucet handle pullers, faucet stem and cartridge pullers, tub drain removers) to facilitate plumbing activities.
43.	Ability to use specialty wrenches (e.g., chain wrenches, spud wrenches, adjustable pipe wrenches, strainer wrenches, water heater element removal wrenches, angle-stop puller, garbage disposal wrench) to facilitate plumbing activities.
44.	Ability to insert a snake camera down pipes to record and/or diagnose plumbing fixture obstructions and other possible issues (e.g., wear and tear) causing malfunctions.
45.	Ability to use a handheld camera to determine source of leaks and other damages to piping.
46.	Ability to hold safety meetings and prepare reports as a record of the meeting topics discussed.
47.	Ability to plan, lay out, direct, and inspect the work of a crew on plumbing projects to ensure standards for quality and timeliness are met.
48.	Ability to acquire acceptable work habits (e.g., punctuality, neatness, dependability) that comply with departmental guidelines.
49.	Ability to interact positively with individuals of various backgrounds.